REMARKS

The Applicant appreciates the thorough review of the Application by the Examiner. Reconsideration and allowance of all claims are respectfully requested. By this Amendment, Claim 1 and 2 have been amended and Claims 12 - 15 have been added. Claims 1 - 15 are now pending in the Application, including independent Claim 1.

No new matter has been added by the amendment. No new issues are raised by the amendment. Claims 1 and 2 have been amended to correct informalities and to overcome the 35 U.S.C. 112, second paragraph rejection. New Claims 12 - 14 capture the subject matter canceled from Claim 1. New Claim 15 teaches that he means for identifying the type of pest comprises a digital camera and software programmed on the central system server for image analysis or pattern recognition, as taught for example on Page 18, last paragraph (see also Page 17, second to last paragraph, Claims 2 and 3). This important feature allows for highly accurate pest identification and is an improvement over the references.

Claims 1 - 9 and 11 are patentable under 35 U.S.C. 103(a) over Gardner, Jr. et al. (US 6,937,156) in view of Cooper et al. (US 6,885,299).

Cooper is non-analogous art

The examiner states that Gardner fails to disclose collected data being encrypted before being transmitted to the local server and thus relies on Cooper as teaching encryption of data relating to locating and monitoring insects. However, Cooper is non-analogous art and cannot render the present invention obvious because it is neither in the field of Applicant's endeavor, nor reasonably pertinent to the particular problem with which the applicant was concerned. Cooper should be removed as a reference. Cooper is not in the field of Applicant's endeavor, which is

PAGE 5/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34

pest control, as Cooper relates to geopositionable expendable sensors used to monitor surface conditions and has nothing to do with pest control.

Cooper is also not reasonably pertinent to the particular problem faced by Applicant. The particular problem solved by the present application is the need to continuously and automatically detect the presence of a wide variety of pests in a given area such as a building, determine their nature, and take actions to eliminate the pests on the basis of that information while maximizing safety and hygiene and minimizing the need for human presence. Cooper has nothing to do with that. Cooper does not, because of the matter with which it deals, logically commend itself to an inventor's attention in considering this problem. See Wang Laboratories Inc. v. Toshiba Corp., 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

Cooper has nothing to do with pest control and never mentions pest control at all. Cooper deals with a sensor system having air-deployed sensor pods for monitoring for the presence of contamination by biological, chemical, or radioactive agents on a terrain surface. No inventor would think to look to Cooper for solutions to pest control problems. Therefore, Cooper is not analogous art.

Because Cooper is neither in the field of Applicant's endeavor, nor reasonably pertinent to the particular problem with which the applicant was concerned, it is non-analogous art and should be removed as a reference.

The Examiner has not produced a *prima facie* case of obviousness

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to

PAGE 6/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34

combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added).

Gardner and Cooper, taken alone or in combination, do not teach or suggest all the limitations of Claim 1. For example, Gardner and Cooper do not teach or suggest means for identifying the type of pest or software modules incorporating self-learning in response to generated data and predetermined responses in view of incoming collected data. The Examiner allows that Cooper does not teach these limitations, and therefore relies on Garnder.

Initially it should be noted that the Examiner's reference to col. 1, l. 28-33 implies that all types of pest have unique characteristics which may be decided/determined from the change in capacitance of the electrode grid (801). This is of course not the case, as changes in temperature, humidity, dust etc will affect the capacitance. Furthermore, various types of pest have overlapping sizes, weights, moisture contents etc. The capacitance device is discussed in the description col. 8, l. 55-67 with reference to an insect detection device. It is submitted that Gardner does not disclose means for identifying all types of pests but merely and in best case only insects.

The present invention uses only one type of trap regardless of the pest. The system has means for detecting characteristics of the particular pest present in the trap. These characteristics are compared to earlier collected data in a database, and the type of pest is identified. After identification the trap is activated by commands from the central computer to carry out pre-determined responses (such as activating one or more means for exterminating the pest).

PAGE 7/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34

The system furthermore has a "self-learning" capability, such that particular or unusual behaviour of an otherwise well known behavioural pattern for that particular spices of pest may be recorded and stored for further use in generating the appropriate pre-determined response.

As mentioned, an important feature of the present invention is the software modules incorporating self-learning in response to generated data and predetermined responses in view of incoming collected data, which is not taught by Gardner. The Examiner argues that Gardner teaches this feature inherently in col. 11, lines 13-17. However, the lines referred to by the examiner relate only to algorithms. It is acknowledged that the communication system as for example illustrated in fig. 1 of Gardner does require (trivial) software in order to handle information between the detection units and the data storage. Furthermore the software is also able to generate and prioritise alarms in response to collected data.

On the other hand, self-learning is not described nor is it suggested in Gardner. It is in this context not inherent in software, neither in general nor in the particular technical field of Gardner. Self-learning often requires fuzzy-logic software as for example Kohonen-networks, which are radically different from "algorithms".

MPEP 2112 (IV) states that "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic... "Inherency... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of

PAGE 8/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34

circumstances is not sufficient.' " In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted)

The presence of algorithms does not necessarily imply the existence of self-learning. Therefore, the Examiner's reliance on the doctrine of inherency is misplaced. It is therefore submitted that the reference by the examiner to col. 11, l. 13-17 stating that it is inherent, does not provide the software with self-learning abilities. The skilled person is in no way suggested or induced to even consider adapting the software of Gardener to be self-learning. It is therefore not obvious.

Thus Gardner and Cooper, taken alone or in combination, do not teach or suggest all the claimed limitations. Furthermore, there would be no motivation to combine the references in the manner proposed by the Examiner. The Examiner argues that such a combination would be obvious "so that the data transmission can be secured." However, data from pest identifiers is not typically private data that needs to be secured from unauthorized interception. Rather, encryption is used in the present invention to avoid disturbing or creating interference with other wireless communications taking place in the same area.

A number of traps/sensors may be arranged in a limited space, and at the same time mobile phones, wireless internet etc. may take place. By using encryption the signal from each separate trap/sensor may be isolated and transmitted without interfering with other transmissions and without itself being disturbed/distorted. Neither reference recognizes this problem or the solution. Therefore there would have been no motivation for the Examiner's proposed combination.

For at least the above reasons, Claim 1 is patentable over all references. At least because Gardner and Cooper, taken alone or in combination, do not teach or suggest all the claimed

PAGE 9/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34

limitations, snd because there would be no motivation for their combination, it is respectfully submitted that the Examiner has not put forth a *prima facie* case of obviousness and that the rejection must be withdrawn.

Claims 2 - 9 depend from Claim 1 and share its patentable features and add further patentable limitations. Examples are given below.

Claims 2 and 3 refers to specific types of sensors useable depending on the class of pest (rodents vs insects). The Examiner cites to col. 5, lines 40-41 of Gardner as teaching a movement sensor according to these claims. A mercury switch (Gardener col. 5, l. 40-41) needs to be shaken requiring the rodent to come into contact with the switch either directly or indirectly by means of the trap per se. This however rules out a number of situations where pest activity may be present but which will not activate such a sensor. In col. 5 a few other sensors are discussed which all requires that a sensor be agitated or a light beam is broken. A number of events (leaves or litter being blown around, a finger from an operator etc.) having nothing to do with pests may activate these types of sensors, and thereby generate a wrong/faulty impression of pest activity at that particular location.

The types of sensors mentioned in claims 2 and 3 will not accidentally be activated, and therefore provide a security to the system which Gardener fails to do. This fact is especially important when seen in combination with the systems' ability for self-learning. If a number of events are recorded, and thereby influence the self-learning ability, which in fact are straws, leaves, litter or the like setting of the sensors, the self-learning routines will not reflect the real situation, and thereby generate unreliable results/alarms. It is therefore necessary, and a condition for the system according to the present invention, that a substantially foolproof

PAGE 10/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34

identification of pests is conducted as well as reliable activity data collected. Gardener firstly does not have the self-learning ability, and consequently does not need absolutely reliable data.

Claim 5 adds that the system further comprises means for transmitting a status report on the current status of the detection unit at predetermined time intervals, and, additionally, is capable of transmitting alarm signals if/when action (activity) is detected in the detection unit. Gardner does not teach or suggest this feature.

The Examiner cites to Gardner as teaching "that the status report on the current status of the detection unit at predetermined time intervals." That does not speak to the element of transmitting alarm signals if/when action (activity) is detected in the detection unit.

In col. 6, lines 10-18 Gardner suggests that data may be stored in the sensor, and transmitted to the central server at a later point in time, for example when an operator initiates the procedure. The invention as disclosed in claim 5 operates in a different manner. Signals are transmitted to the central computer at predetermined intervals, regardless of there being any activity in the trap/sensor. This is done in order to ascertain that the sensor is operating properly and is online, which is very important for the proper functioning of the system. The further feature that data relating to activity in between the predetermined times when the sensor transmits to the central unit may also be carried out with the present invention.

Claim 6 adds that the central server comprises a database where data from the detection units as well as actions in response to such data is stored, and that the data by means of suitable software is used in order to predict possible causes of presence of pests, causes of alarm and/or suggest possible actions, and that the collected data is correlated and integrated with the database. Gardner does not teach or suggest this feature.

PAGE 11/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34

The Examiner cites to Gardner col. 7, lines 5 – 17 as disclosing the same features. This however is not the case. Gardner does not teach predicting possible causes of presence of pests or suggest possible actions. Gardner does teach providing a report of traps that should be visited according to some determined schedule, but this is not in response to data from the detection units. The present invention, by employing more advanced sensors, which Gardner advises against, see section [0051], is able to online detect all necessary features in order to reliably determine the type and number of pests in the sensor/trap. This provides for substantial savings, even taken into account the more expensive hardware.

For at least the reasons given above, the rejection of Claims 1 - 9 under 35 U.S.C. 103(a) over Gardner is improper and should be withdrawn.

Claim 10 is patentable under 35 U.S.C. 103(a) over Gardner, Jr. et al. (US2003/0213161) in view of Cooper et al. (US 6,885,299), and further in view of Roberts (US 6,792,395).

Claim 10 depends from patentable Claim 7 and adds that the wireless means comprise GSM or GPRS. Roberts does nothing to add what Gardner and Cooper lack. For at least this reason, the rejection of Claim 10 under 35 U.S.C. 103(a) over Gardner in view of Cooper and Roberts is improper and should be withdrawn.

PAGE 12/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34

CONCLUSION

Reconsideration and allowance of all claims are respectfully requested.

Respectfully,

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PAGE 13/13 * RCVD AT 11/6/2008 12:59:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:703 448 7397 * DURATION (mm-ss):04-34